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10/782,193	02/19/2004	Hyo-Sun Hwang	12000.SMG.0008	4103

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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/782,193
Filing Date: February 19, 2004
Appellant(s): HWANG ET AL.

Rachael Lea Leventhal
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10-06-2010 appealing from the Office action mailed 04-23-2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

6, 8-11, 13-15, 20 and 23-27.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

Ketcham	US 6,721,334
O'Mahony et al	US 2004/0018016
AAPA	Current application

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 6, 9-11, 14, 15, 20 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ketcham (US 6,721,334) in view of O'Mahony et al (US 2004/0018016). Hereinafter referred to as O'Mahony.

Regarding claims 6, 11, 20 and 26-27. Ketcham discloses an apparatus for generating an aggregation packet in a communication system (see figs 3 and 4, and col.2, lines 46-55). the apparatus comprises: a buffer manager for storing a plurality of data packets (fig.3 and 4. routers 308-312) and receiving QOS information associated with each packet (it is inherent that IP packets include a QOS section); and an aggregation module for receiving the plurality of data packets from the buffer manager and aggregating at least two data packets having a same destination address among the plurality of received data packets to form a single aggregated packet (see figs 3 and 4, and col.2, lines 46-55. Routers 308 receives packets and aggregates them as long as

they have the same destination), wherein a header of each of the at least two data packets includes length information and a destination address (see figs 3 and 4, and col.2, lines 46-55 and col.2 line 60- col.3, line 6, see col.7, lines 43-52. The system uses IP packet which must have and header length and destination address sections within), and a header of the aggregated packet includes a destination address which is identical to the destination address included in the header of the at least two data packets (see figs 3 and 4, and col.2, lines 46-55, the aggregated packet includes the same destination as of the combined packets because the system requires that the combined packets must have the same address).

Ketcham discloses all the limitations of the claimed invention with the exception that the two data packets further have the same QOS parameters. However, O'Mahony, from the same field of endeavor, teaches a packet combining system where packets are to be combined based on destination and QOS parameters (see paragraph [0040]). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine packets based on destination and QOS parameters, as taught by O'Mahony, for the purpose of maintaining quality of service and using channels capacity wisely.

Regarding claims 9, 10, 14, 15 and 24-25. Ketcham view of O'Mahony discloses a method wherein the header of the aggregation packet further includes the length information of each of the at least two packets (see col.3 lines 1-5).

6. Claims 8, 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ketcham in View O'Mahony and further in view of the APA (admitted prior art) of the current application.

Regarding claims 8, 13 and 23. Ketcham view of O'Mahony discloses all the limitations of the claimed invention with the exception that the aggregated packet includes a data section corresponding to each of the at least two data packets. However, APA discloses the possibility of including a data section that corresponds to each of the data packets in the aggregated packet (Fig.2). Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to include a section of each data packet within the aggregated packet, as taught by APA, of Ketcham view of O'Mahony for the purpose of organizing the aggregated packet and using the communication bandwidth efficiently.

(10) Response to Argument

A. Rejection under 35 U.S.C (a): Claims 6, 9-11, 14-15, 20, and 24-27 over Ketcham in view of O'Mahony.

Applicants' representative contends that the prior art of record fails to teach "a buffer manager configured to store a plurality of data packets; and an aggregation module configured to receive the plurality of data packets from the buffer manager".

Examiner respectfully disagrees, the prior art of record discloses routers 308-314 capable of receiving data packet and aggregating/de-aggregating them into one packet as can be seen within at least fig 3 (see illustration below). with respect to the argument submitted, a person of ordinary skill in the art would recognize that a structure of an

apparatus such as the one disclosed by the prior art of record would have to include, some type of a memory, receiving queues or buffers at the level of the receiving port to receive and store the received data, a scheduler to schedule the processing of each received packet and some type or process, using a processor, to process the received data and determine which packets need to be aggregated and which packets do not need to be aggregated, to produce an aggregated packet. Therefore the prior art of record teaches the argued limitation.

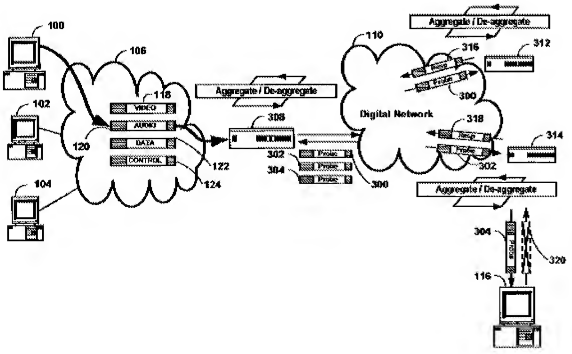

FIG. 3

Ketcham: Fig.3

> When another packet is received over the network, the route of the packet is etermined. If the route shares at least one common destination with the first packet and that destination supports aggregate packets, an aggregate packet is created including the first packet and the second packet.

Ketcham: col.2, lines 46-50

Applicants' representative contends that the prior art of record fails to teach the limitation of "...a header of the aggregated packet includes a same destination address and identical QOS information ...".

Examiner respectfully disagrees, the primary prior art of record, discloses an apparatus capable of receiving packets and aggregating them as long as they share at least one common destination (see Ketcham: col.2, lines 46-53). As previously indicated in the final office action, the primary prior art of record discloses aggregating packets based on destination and fails to additionally aggregate packets based on identical QOS as well. However, O'Mahony (paragraph [0040]), from a similar field of endeavor, discloses a method of aggregating IP packets based on destination and QOS parameters and forming an optical packet encapsulating the aggregated packets under a label that signifies the destination and QOS class which implies that the QOS requirements included in the IP packets is also converted into a QOS class that suits the same QOS required by the IP packet therefore, the QOS parameters has to be the same in order to be aggregated under the same QOS class. For example, it would make no logical sense to take QOS into consideration to combine less priority packets with high priority packet, on the other hand it will waste of network resources and delay. Therefore, O'Mahony clearly discloses/teaches aggregating packets based on destination address and QOS as claimed by the present application. Moreover, the

person of ordinary skill in the art would know how to incorporate the teaching of aggregating packet based on QOS in addition to the destination address, as taught by O'Mahony, into the teaching of aggregating packets based on destination address only, as taught by the primary prior art of record Ketcham, for the purpose of using network resources efficiently.

Therefore, the limitations of the claims 6, 11, 20, and 26-27 are taught by the prior arts of record as discussed above.

Applicants' representative contends that the prior art of record fails to teach the limitation of "wherein the aggregated packet includes the length information of each of the at least two data packets.

Examiner respectfully disagrees, the primary prior art of record, Ketcham, discloses that each aggregated packet includes a table that describes the location and size of the embedded packets (see col.3, lines 1-3). Moreover, Ketcham further discloses that that the header provides the location and size value describing the embedded packets (see col.3, lines 7-12, col.10, lines 19-22). Furthermore, if the size of each packet is not disclosed, how would the receiver know how to differentiate between the packets if it does not know the size of each one? Therefore, the prior art of record teaches that the header describes the location of each packet and there sizes.

B. Rejection under 35 U.S.C (a): Claims 8, 13, and 23 over Ketcham in view of O'Mahony and further in view of AAPA.

Applicants' representative contends that the prior art of record fails to teach that the aggregated packet includes a data section corresponding to each of the at least data packets, the data section precedes the corresponding data packets.

Examiner respectfully disagrees, AAPA clearly discloses a one data section corresponding to each packet and preceding each corresponding data packet (see fig.2 of the AAPA). As can be seen from fig 2 discloses a single overhead corresponding to each of the data packets and it precedes each of the data packets. Claims are given their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

Therefore, all the claim limitations are taught by the prior art of record as discussed above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Mounir Moutaouakil/

Examiner, Art Unit 2476

Conferees:

/Phirin Sam/

Primary Examiner, Art Unit: 2476

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2476